STIC Search Report
EIC 3700

STIC Database Tracking Number: 219915

TO: Charles Marmor **Location: RND 7a29** **Art Unit: 3735** **Case Serial Number: 10/007393**	**From: Jeanne Horrigan** **Location: RND 8A34** **Phone: 571-272-3529** **jeanne.horrigan@uspto.gov**

Search Notes

Attached are the search results for the wireless intravaginal probe. I tagged the items that seemed most relevant to me, but I recommend that you review all of the results.

Also attached are a copy of your search request for your files and a search feedback form. Completing the form is voluntary. The completed forms help ensure that our services match your needs.

I hope the results are useful. Please feel free to contact me if you have any questions or want additional searching on this application.

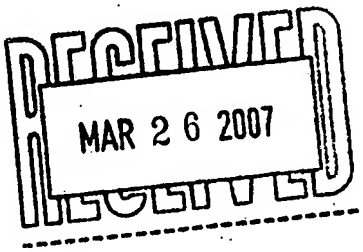
JH

219915

Solomon, Terrance

From: SPE CHARLES MARMOR II [charles.marmorii@uspto.gov]
Sent: Monday, March 26, 2007 10:47 AM
To: STIC-EIC3700
Subject: Database Search Request, Serial Number: 10/007393

Requester:
CHARLES MARMOR II (P/3735)
Art Unit:
GROUP ART UNIT 3735
Employee Number:
74438
Office Location:
RND 07A29
Phone Number:
(571)272-4730
Mailbox Number:



Case serial number:
10/007393
Class / Subclass(es):
600/591, 549
Earliest Priority Filing Date:
10/26/2001
Format preferred for results:
Paper
Search Topic Information:
Intravaginal probe with transceiver, antenna, power source and means for sensing vaginal conditions (e.g. temperature, pH, EMG), for delivering medication, and/or stimulating perineal musculature and nerves disposed within a probe housing. The probe wirelessly communicates with an external unit.
Special Instructions and Other Comments:
PLEASE RUSH.

/Charles Marmor, II/
Charles Marmor, II
SPE, Art Unit 3735

200300083590
A61B5,10
& C05F
A61N

[File 155] **MEDLINE(R)** 1950-2007/Mar 23
[File 5] **Biosis Previews(R)** 1926-2007/Mar W3
[File 73] **EMBASE** 1974-2007/Mar 27
[File 94] **JICST-EPlus** 1985-2007/Apr W1
[File 144] **Pascal** 1973-2007/Mar W3
[File 2] **INSPEC** 1898-2007/Mar W3
[File 6] **NTIS** 1964-2007/Mar W4
[File 8] **Ei Compendex(R)** 1884-2007/Mar W3
[File 35] **Dissertation Abs Online** 1861-2007/Feb
[File 65] **Inside Conferences** 1993-2007/Mar 26
[File 45] **EMCare** 2007/Mar W3
[File 23] **CSA Technology Research Database** 1963-2007/Mar
[File 315] **ChemEng & Biotec Abs** 1970-2007/Feb
[File 357] **Derwent Biotech Res.** 1982-2007/Mar W3
[File 358] **Current BioTech Abs** 1983-2006/Jan
[File 285] **BioBusiness(R)** 1985-1998/Aug W1
[File 71] **ELSEVIER BIOBASE** 1994-2007/Mar W4
[File 91] **MANTIS(TM)** 1880-2006/Jan 2001
[File 164] **Allied & Complementary Medicine** 1984-2007/Mar
[File 467] **ExtraMED(tm)** 2000/Dec

Set	Items	Description
S1	252826	S VAGINA? OR INTRAVAGINA?
S2	1096047	S PROBE OR PROBES
S3	319542	S TELEMET? OR WIRELESS
S4	10	S S1 AND S2 AND S3
S5	**4**	**RD (unique items)**
S6	268898	S VAGINA? OR INTRAVAGINA?
S7	1207535	S PROBE OR PROBES
S8	323128	S TELEMET? OR WIRELESS
S9	0	S (S6 AND S7 AND S8) NOT S4

5/7/1 (Item 1 from file: 155)
Fulltext available through: ScienceDirect (Elsevier) USPTO Full Text Retrieval Options
MEDLINE(R)

10854252 **PMID:** 8673316
Vaginal temperature sensing using UHF radio telemetry.
McCreesh Z; Evans N E; Scanlon W G
Northern Ireland Bioengineering Centre, UK.
Medical engineering & physics (ENGLAND) Mar 1996 , 18 (2) p110-4 , **ISSN:** 1350-4533--Print **Journal Code:** 9422753
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
User-induced errors are common when women repetitively employ conventional **probe** type thermometers to chart their basal body temperatures in an effort to indicate ovulation. An alternative technique employing a two-part **telemetric** thermometer is proposed, with low-power, SAWR-controlled UHF radio as the transmission medium. Worn overnight in the **vagina**, the 1 microW erp **telemetry** transmitter sends pulse modulated data continuously to a microcontroller in a nearby receiver; a real time clock enables programmable sampling and storage of the subject's temperature to 0.1 degrees C resolution. Initial clinical results indicate an enhanced performance compared to oral and axillary temperature trends taken by a mercury-in-glass thermometer. Polar plots of both the isolated and body-worn **telemetry** transmitter are presented; body induced attenuations of up to 30 dB were

measured.
Record Date Created: 19960809
Record Date Completed: 19960809

5/7/3 (Item 2 from file: 5)
Fulltext available through: ScienceDirect (Elsevier) USPTO Full Text Retrieval Options
Biosis Previews(R)

05133085 **Biosis No.:** 197763053941
MEASUREMENT OF ELECTRIC RESISTANCE OF THE VAGINAL MUCUS AS AN AID FOR HEAT DETECTION
Author: LEIDL W; STOLLA R
Journal: Theriogenology 6 (2-3): p 237-249 1976
ISSN: 0093-691X
Document Type: Article
Record Type: Abstract
Language: Unspecified
Abstract: The electric resistance of the **vaginal** or cervical mucus was studied as an indication of the optimum time for conception during the estrous cycle in cows, sheep, pigs and bitches. For the purpose of differential diagnosis in cows, measurements were made during different stages of pregnancy and in pathologic conditions of the genital organs. A **probe** containing 2 electrodes and an ohmmeter to measure resistance of electric current was developed. There was a distinct relationship between the resistance measurements and the stages of the estrous cycle in the cow. The lowest values were observed during estrus and coincided with the optimal time for breeding. In ovariectomized animals, no changes in resistance were observed. After treatment with estrogen, resistance levels dropped to levels similar to those observed in intact animals at the time of estrus. Pathologic conditions of the genital organs, such as follicular cysts and endometritis, resulted in values corresponding to those observed during estrus. In sheep and pigs, there was a similar correlation between resistance of cervical and **vaginal** secretions and the estrous cycle. In contrast, very high ohm values were observed in the bitch during estrus, probably because of the mixture of blood in the mucus. The **intravaginal** measurement of resistance of **vaginal** or cervical secretions seems to be a useful method for objectively determining estrus. The method offers opportunities for estrus determination, not only in single animals but in large populations under field conditions. The determination of the optimal time for conception in individual animals still remains difficult due to the need for repeated measurements with the presently available instrument. **Telemetric** approaches were successfully tested and offer possibilities for future development of instruments which would constantly monitor resistance and transmit to a recording instrument.

5/7/4 (Item 1 from file: 35)
Dissertation Abs Online

01150685 ORDER NO: AADDX-91854
REMOTE SENSING OF BODY TEMPERATURE IN DAIRY COWS. (VOLUMES I AND II)
Author: MAYET, Y.
Degree: PH.D.
Year: 1990
Corporate Source/Institution: UNIVERSITY OF NEWCASTLE UPON TYNE (UNITED KINGDOM) (0682)
Source: Volume 5111B of Dissertations Abstracts International.
PAGE 5092 . 420 PAGES
Available from UMI in association with The British Library.
Previous studies have shown that the monitoring of body temperature can be used to predict oestrus in the dairy cow. If false predictions are to be minimised, then

identifying those factors that can affect body temperature is important. Therefore, the present study was undertaken to investigate the effect of behaviour on body temperature. A microprocessor based wire **telemetry** system was designed for the automatic monitoring of body temperature. **The system consisted of a temperature probe inserted non-surgically in the vagina, and a central processing unit attached to a belt worn around the cow's neck.** Over a 24 hour period, **vaginal** temperatures were logged at 2 minute intervals and the corresponding behaviour was noted. In total, temperature and behaviour data was obtained from 16 non-oestrous Friesian cows. The mean diurnal fluctuation observed was 0.68 $\pm$ 0.20$\sp\circ$C ($\pm$ S.D.) with a range of 0.45-1.23$\sp\circ$C. A change in body position from lying to standing resulted in a significant decrease of 0.13$\sp\circ$C in body temperature (S.E.D. = 0.026$\sp\circ$C, p $\leq$ 0.001), while the opposite change in body position resulted in a significant increase of 0.15$\sp\circ$C (S.E.D. = 0.021$\sp\circ$C, p $\leq$ 0.001). Rumination resulted in an increase in body temperature and although the magnitude of this increase (0.06$\sp\circ$C) was approximately half of that associated with lying, it was nonetheless significant (p $\leq$ 0.001). The ingestion of silage and water both resulted in a significant decline (p $\leq$ 0.01) in body temperature, the decreases being 0.05$\sp\circ$C in either case. On an individual activity period basis, a large number of cows had some rumination and lying periods where the associated rise in body temperature was 0.20$\sp\circ$C or greater. Since some previous studies have indicated that for some cows the maximum rise in body temperature at oestrus does not exceed 0.20$\sp\circ$C even when measurements are taken at very frequent intervals, then for these cows their behaviour will complicate the detection of oestrus by body temperature monitoring.

[File 149] **TGG Health&Wellness DB(SM)** 1976-2007/Mar W2
[File 135] **NewsRx Weekly Reports** 1995-2007/Mar W2
[File 441] **ESPICOM Pharm&Med DEVICE NEWS** 2007/Sep W3
[File 148] **Gale Group Trade & Industry DB** 1976-2007/Mar 16
[File 16] **Gale Group PROMT(R)** 1990-2007/Mar 26
[File 160] **Gale Group PROMT(R)** 1972-1989
[File 635] **Business Dateline(R)** 1985-2007/Mar 24
[File 636] **Gale Group Newsletter DB(TM)** 1987-2007/Mar 26

Set	Items	Description
S1	28660	S VAGINA? OR INTRAVAGINA?
S2	190629	S PROBE OR PROBES
S3	1352915	S TELEMET? OR WIRELESS
S4	**1**	**S S1(S)S2(S)S3**
S5	8	S S1 AND S2 AND S3
S6	7	S S5 NOT S4
S7	7	RD (unique items)
S8	**7**	**SORT S7/ALL/PD,A**

4/9/1 (Item 1 from file: 160)
Gale Group PROMT(R)

00596437
A telemetry unit for possible use in measuring scalp tissue pH and heart rate of an unborn infant has been developed at Goddard Space Flight Center and tested only on lab animals.
Mechanical Engineering October, 1980 p. 47
The pH **probe**, which would be inserted into the **vagina** and hooked into the scalp of the fetus, connects by wire to a small electronic module strapped to the mother's thigh that contains pH sensors, EKG amplifiers and a **telemetry** transmitter in a 3x3x1-in package. The unit is being considered for use during the hours just before childbirth to warn of problems that might require Cesarean delivery.
Product: *Electronic Diagnostic, Monitor Eqp (3841206)
Event: *Product Design & Development (33)
Country: *United States (1USA)

8/3,K/1 (Item 1 from file: 149)
TGG Health&Wellness DB(SM)

01369702 **Supplier Number:** 12694478 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Electronic fetal monitoring.
Pelka, Fred
Mothering , n65 , p70(6)
Fall , 1992
Publication Format: Magazine/Journal
ISSN: 0733-3013
Language: English
Record Type: Fulltext **Target Audience:** Consumer
Word Count: 2727 **Line Count:** 00262
...her labor might even stop." Nancy Wainer Cohen, coauthor of Silent Knife: Cesarean Prevention and **Vaginal** Birth after Cesarean, believes that "short of standing on her head, this is the worst...
...baby had an "incredible abscess" on his head that lasted six months. Pincus reports that **probes** have been screwed into babies' eyelids, and sometimes into a cheek. "It's not real...
...to dips in the fetal pulse.[21]

IFM can cause maternal complications as well, particularly **vaginal** and cervical lacerations, and an increased likelihood of infection. One study shows a 40 percent...
...Led Maternity
Lisa Gery, president of the Cesarean Prevention Movement of Massachusetts and a VBAC (**vaginal** birth after cesarean) mom, calls EFM "the essence of the dehumanization of birth." This form...a nurse or midwife, allowing for human contact and reassurance, she is now checked by **telemetry** that is monitored by a nurse often stationed in another room. Even when people are...
...as cited in Nancy Wainer Cohen and Lois J. Estner, Silent Knife: Cesarean Prevention and **Vaginal** Birth after Cesarean (Hadley, MA: Bergin & Garvey, 1983), p. 141.
[17.] H. B. Meire, "The...

8/3,K/3 (Item 3 from file: 636)
Gale Group Newsletter DB(TM)

03624712 **Supplier Number:** 47807434 **(THIS IS THE FULLTEXT)**
First of 2 parts: Alex. Brown presenters playing key roles in ultrasound 'revolution'
The BBI Newsletter , v 20 , n 7 , p N/A
July 1 , 1997
Text:
... Urology sector
A private company with technology from Israel, Influence (San Francisco, California), is developing products for the diagnosis and treatment of urinary incontinence, a condition which affects an estimated 10 million women and 1.5 million men (see story on page 128). Although the company's headquarters are in the U.S., its research and development, as well as its manufacturing, are in Tel Aviv. Influence's initial portfolio includes two diagnostic products, five female incontinence products, and three male incontinence products.
More specifically, these products are: a Holter monitor for the monitoring of bladder pressures, a small catheter with an internal pttmp, a **wireless** biofeedback device, two tissue anchors for the surgical treatment of incontinence, and a remote-control version of the AMS implantable cuff. The In-**Probe** is an inexpensive, portable, urodynamic monitor whose 510(k) submission to the FDA will be made dudrig the second half of 1997. The In-Flow catheter consists of a catheter containing pump blades which are magnetically coupled to an external motor. The catheter can be placed in the urethra for 30 days. To activate the pump in the catheter, the portable, battery-powered, reusable drive motor is aligned vertically, overlying the skin of the pubic bone. This product replaces the use of cumbersome leg bags or self-catheterization. It was launched in Europe earlier this year, with only five urinary tract infections occurring in more than 200 patient-months of use. Influence began a 200 patient study in the U.S. with the device in May.
The In-Bio is a wireless biofeedback device which is placed in the vagina like a tampon and is used in the treatment of urinary incontinence in women. The company's two tissue anchors are both made of nitinol. The In-Tac is a tissue anchor which can be applied trans**vaginal**ly. This product received 510(k) approval for use in the treatment of female urinary incontinence in February and was subsequently launched at the American Ufological Association and American College of Obstetricians and Gynecologists meetings. It has been used in more than 100 patients outside of the U.S., with an 83% success rate. The In-Fast is a screwshaped tissue

anchor. This product received 510(1<) approval for use in the treatment of urinary incontinence in May...

[File 10] **AGRICOLA** 70-2007/Mar
[File 203] **AGRIS** 1974-2007/Jan
[File 99] **Wilson Appl. Sci & Tech Abs** 1983-2007/Feb
[File 143] **Biol. & Agric. Index** 1983-2007/Feb
[File 50] **CAB Abstracts** 1972-2007/Feb

Set	Items	Description
S1	22041	S VAGINA? OR INTRAVAGINA?
S2	64932	S PROBE OR PROBES
S3	11701	S TELEMET? OR WIRELESS
S4	2	S S1 AND S2 AND S3
S5	**2**	**RD (unique items)**

5/7/2 (Item 2 from file: 50)
CAB Abstracts

0005527286 **CAB Accession Number:** 19842423155
Electronics for reproductive management of farm animals.
Regas, S.
Animark Inc., 794 Ventura Street, Aurora, CO 80011, USA.
Agricultural electronics - 1983 and beyond. Volume II: Controlled environments, livestock production systems, materials handling and processing. Proceedings of National Conference, December 11-13, 1983, Chicago.
Conference Title: Agricultural electronics - 1983 and beyond. Volume II: Controlled environments, livestock production systems, materials handling and processing. Proceedings of National Conference, December 11-13, 1983, Chicago.
p.453-463
Publication Year: 1984
5 fig., 2 tab.
Publisher: American Society of Agricultural Engineers St. Joseph, Michigan , USA
Language: English **Record Type:** Abstract
Document Type: Conference paper
In the search for a reliable and accurate method for the detection of oestrus, considerable attention has been paid to the electrical resistance of **vaginal** mucus (VER) which was found to have a definite relation to the onset of heat. The instrument used to measure VER consists of a stainless steel **probe** attached to a solid-state device with a digital readout. To avoid the need for frequent monitoring with a manually operated instrument, **an intra-vaginal implant is being developed, which will monitor VER continuously and transmit the readings to a computer by telemetry**. A-scopes based on a pulse-echo technique and an ultrasonic instrument utilizing the Doppler effect are used for pregnancy diagnosis. 22 ref.

[File 20] **Dialog Global Reporter** 1997-2007/Mar 28
[File 781] **ProQuest Newsstand** 1998-2007/Mar 27

Set	Items	Description
S1	19310	S VAGINA? OR INTRAVAGINA?
S2	368842	S PROBE OR PROBES
S3	1087920	S TELEMET? OR WIRELESS
S4	**1**	**S S1(S)S2(S)S3 [too recent]**
S5	1	S S1(S)S2 AND S3
S6	0	S S5 NOT S4

[File 275] **Gale Group Computer DB(TM)** 1983-2007/Mar 27
[File 674] **Computer News Fulltext** 1989-2006/Sep W1
[File 647] **CMP Computer Fulltext** 1988-2007/Jun W2
[File 696] **DIALOG Telecom. Newsletters** 1995-2007/Mar 27
[File 9] **Business & Industry(R)** Jul/1994-2007/Mar 27
[File 98] **General Sci Abs** 1984-2007/Mar
[File 624] **McGraw-Hill Publications** 1985-2007/Mar 27

Set	Items	Description
S1	2719	S VAGINA? OR INTRAVAGINA?
S2	53254	S PROBE OR PROBES
S3	432466	S TELEMET? OR WIRELESS
S4	0	S S1(S)S2(S)S3
S5	0	S S S3/TI AND S1(S)S2
S6	0	S S1(S)S2 AND S3
S7	8	S S1(S)S2
S8	7	RD (unique items)
S9	**7**	**SORT S8/ALL/PD,A**

9/7/5 (Item 5 from file: 98)
General Sci Abs

03027585 **H.w. Wilson Record Number:** BGSI95027585
Urinary incontinence: electricity stimulates improvements in many.
Geriatrics (Geriatrics) v. 50 (June '95) p. 22-3
Language: English
Country Of Publication: United States
Abstract: At the 90th annual meeting of the American Urological Association in Las Vegas, Michael B. Chancellor, M.D., reported on the benefits of electrical stimulation (ES) for patients with urinary incontinence. The therapy, which was first devised in the 1960s, involves applying a mild, undetectable electrical current to the **vaginal**, rectal, or spinal nerves to control urination. Affected individuals may go on a 6-10-week training course to learn how to use removable stimulators or may have a small, discharge device-coupled **probe** implanted near the S3 sacral spinal nerves.

[File 350] **Derwent WPIX** 1963-2006/UD=200720
[File 347] **JAPIO** Dec 1976-2006/Nov(Updated 070228)

Set	Items	Description
S1	19774	S VAGINA? OR INTRAVAGINA?
S2	170190	S PROBE OR PROBES
S3	144801	S TELEMET? OR WIRELESS
S4	**10**	**S S1 AND S2 AND S3**

4/5,K/7 (Item 7 from file: 350)
Derwent WPIX

0002327069
WPI Acc no: 1981-E1552D/198119
Body fluid conductivity meter esp. for vaginal mucous - has sensor contacts incorporated in radio probe with remote control
Patent Assignee: DEUT FORSCH LUFT RA (DELU-N); DEUT FORSCH LUFT RAUMFAHRT EV (DELF)
Inventor: BLACHETTA W
Patent Family (2 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
DE 2941363	A	19810430	DE 2941363	A	19791012	198119	B
DE 2941363	C	19850822	DE 2941363	A	19791012	198535	E

Priority Applications (no., kind, date): DE 2941363 A 19791012
Alerting Abstract DE A
The meter uses a sensor (3) inserted in the body and associated with a radio **probe** (1) which has a store holding measured data, a remote-control receiver and a transmitter. The evaluation circuit to which the sensor (3) is coupled has a remote-control transmitter and a receiver for the transmitted measured data. The signal containing the latter is transmitted at freely selected time points.
Pref. the radio **probe** (1) has a hermetically sealed titanium housing (2) with the sensor contacts (3) at the front. The housing (2) is divided into two chambers (4,5) containing a hybrid thin-film electronic module (9) and a replaceable lithium cell (8) respectively.
Equivalent Alerting Abstract ...The meter uses a sensor (3) inserted in the body and associated with a radio **probe** (1) which has a store holding measured data, a remote-control receiver and a transmitter... ...Pref. the radio **probe** (1) has a hermetically sealed titanium housing (2) with the sensor contacts (3) at the...

4/5,K/8 (Item 8 from file: 350)
Derwent WPIX

0002313547
WPI Acc no: 1981-M2471D/198148
Female mammals temperature measuring system - has battery powered transmitter containing thermistor which when implanted transmits frequency corresponding to deep body temp.
Patent Assignee: UNIV NEW MEXICO STATE (UYNE-N)
Inventor: ZARTMAN D L
Patent Family (13 patents, 8 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
EP 40077	A	19811118	EP 1981302073	A	19810511	198148	B
GB 2077593	A	19811223	GB 198114073	A	19810508	198152	E
DK 198102093	A	19811221				198203	E
US 4377157	A	19830322	US 1980149250	A	19800512	198314	E
			US 1980194583	A	19801006		
			US 1985714622	A	19850321		
US 4387724	A	19830614	US 1980149250	A	19800512	198326	E

			US 1980194583	A	19801006		
			US 1985714622	A	19850321		
			US 1985744636	A	19850614		
EP 40077	B	19840704	EP 1981302073	A	19810511	198427	E
GB 2077593	B	19840704				198427	E
DE 3164553	G	19840809				198433	E
CA 1182531	A	19850212	CA 377434	A	19810512	198511	NCE
			CA 464461	A	19841001		
			CA 464462	A	19841001		
CA 1205867	A	19860610	CA 377434	A	19810512	198628	NCE
			CA 464461	A	19841001		
			CA 464462	A	19841001		
CA 1205868	A	19860610	CA 377434	A	19810512	198628	NCE
			CA 464461	A	19841001		
			CA 464462	A	19841001		
US RE32275	E	19861104	US 1980149250	A	19800512	198647	E
			US 1980194583	A	19801006		
			US 1985714622	A	19850321		
US RE32758	E	19881004	US 1980149250	A	19800512	198842	E
			US 1980194583	A	19801006		
			US 1985714622	A	19850321		

Priority Applications (no., kind, date): US 1985744636 A 19850614; US 1980194583 A 19801006; US 1980149250 A 19800512; US 1985714622 A 19850321

Alerting Abstract EP A

The **temperature sensing probe** consists of a battery powered transmitter containing a thermistor which sends out a pulsed signal where the pulse frequency corresponds to the temperature of the transmitter. When **inplanted in the vaginal** canal of the animal, the transmitted frequency corresponds to the deep body temperature of the animal. The receiver may be local or, in the extreme, several miles away.

The temperature signal is received, recorded and analysed during a preselected time period of, for example, five minutes, at the same time each day. For bovine animals the time of measurement is usually between 5.00 am and 7.00 am when it is established that the minimum temperatures occur. The temperature profile obtained is very helpful in foretelling the onset of estrus and thus maximise the conception rate of the animals. To implant the **probe**, radially-extending spider-like legs are collapsed prior to placing in a speculum tube which is the means of insertion into the **vagina**. Upon ejection by means of a push-rod the legs extend and form an anchor.

Original Abstracts:

...such as cows, is monitored using a battery powered radio **telemetric** temperature measuring device (26) **of** a size adapted for insertion into the uterine canal (18) carried by an expandable anchor... ... approximately the same size in its collapsed condition as the **telemetric** device (26). The anchor (**10**) is collapsed and inserted along with the **telemetric** device (26) attached thereto **into** the **vagina** (18) to a depth **where** the assembly (24) thus formed lies adjacent the cervix (14). The anchor (10) is expanded... ... to an improved device for **intravaginal** implantation in mammalian females characterized by an axially-extending **hub** encircled at both ends by a plurality of radially-extending springable spine-like fingers defining... ... is left accessible to the **vaginal** wall musculature to a degree which will allow contortions **thereof** to expel the device while, at the same time, leaving sufficient hub exposed between the... ... **probe** capable of remote interrogation to an expandable anchor, implanting the **probe** with the anchor **attached** thereto in collapsed condition within the **vaginal** canal, expanding the **anchor** to maintain the **probe** in place despite the animal's **muscular** efforts to expel same, interrogating the **probe from** a remote location on a daily basis at approximately the same time each **day** for a period not less than one complete estrous cycle, and noting any abrupt change...

Claims:
The temperature sensing **probe** consists of a battery powered transmitter containing a thermistor which sends out a pulsed signal where the pulse frequency corresponds to the temperature of the transmitter. When inplanted in the **vaginal** canal of the animal, the transmitted frequency corresponds to the deep body temperature of the ... ...onset of estrus and thus maximise the conception rate of the animals. To implant the **probe**, radially-extending spider-like legs are collapsed prior to placing in a speculum tube which is the means of insertion into the **vagina**. Upon ejection by means of a push-rod the legs extend and form an anchor... ...A device for **intravaginal** implantation in a mammalian female comprising an axially extending hub encircled by two rings of... ...opposed extremities of the hub which is devoid of any projecting portion accessible to the **vaginal** wall musculature, and temperature sensing means mounted on said hub in nested protective relation among...

4/5,K/9 (Item 1 from file: 347)
JAPIO

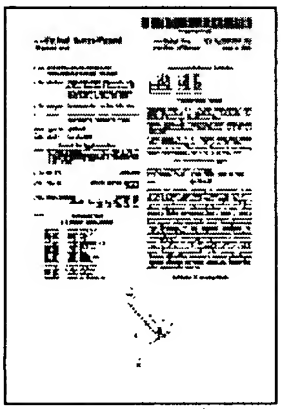
05020937 **Image available**
PARTURITION ALARM DEVICE
Pub. No.: 07-313537 [JP 7313537 A]
Published: December 05, 1995 (19951205)
Inventor: SEIKE NOBORU
MAKIKATA SUEO
ARATA SHIGERU
Applicant: SNOW BRAND MILK PROD CO LTD [000669] (A Japanese Company or Corporation), JP (Japan)
FUJIYA YANO KAGAKU KK [000000] (A Japanese Company or Corporation), JP (Japan)
CHINO CORP [400125] (A Japanese Company or Corporation), JP (Japan)
Application No.: 06-106942 [JP 94106942]
Filed: May 20, 1994 (19940520)
International Class: [6] A61D-001/08; A01K-067/02
JAPIO Class: 11.3 (AGRICULTURE -- Livestock)
ABSTRACT
PURPOSE: To accurately and easily know the parturition time of a livestock, and efficiently and safety enable parturition.
CONSTITUTION: A **probe** having a temperature sensor 2 is inserted in the **vagina** of a livestock. Prior to parturition of a fetus, forewaters are discharged, and at the same time, the **probe** is discharged outside, and the temperature sensor 2 detects a temperature change. A transmitting means 15 detects this temperature change, and **wirelessly** transmits a transmission signal, and a receiving means 20 outputs an alarm signal by **wireless** reception, and informs the livestock owner of a start of parturition.

Google wireless vagina probe Search Patents

Devices and methods for monitoring female arousal

Claire T. Hovland et al

Patent summary



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Abstract | Drawing | Description | Claims

Abstract

Devices and methods according to embodiments of the invention measure physiological changes that occur in the female during sexual arousal. These include changes in clitoral, vaginal-artery, and/or vaginal-capillary blood flow, clitoral engorgement, and bioimpedance, to name a few. Feedback devices and methods assist a patient or medical professional to determine when arousal occurs and what its best triggers are for a particular patient. Overnight arousal-event monitoring, or other continuous monitoring over extended periods of time, either at home or away from home, allows diagnosis of vasculogenic impairment or other problems. The effects of medicinal therapies aimed at female sexual dysfunction can be quantified and used to titrate proper dosages. Embodiments of the invention provide objective, quantifiable measures of multiple physiological variables associated with female arousal, in a manner heretofore unseen...

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Inventors: Claire T. Hovland, L. Dean Knoll, Jerome H. Abrams,

Claims

What is claimed is:

1. A measurement device, comprising:

at least one sensing element constructed for placement in proximity to at least one female anatomical structure, the at least one female anatomical structure being selected from the group consisting of the vagina and the clitoris, the at least one sensing element being constructed to produce first data signals;
a housing constructed for supporting the at least one sensing element in a substantially fixed relationship with respect to at least one blood vessel within the female anatomical structure, the at least one blood vessel including the clitoral cavernosal artery, such that the first data signals are related to a blood parameter associated with the clitoral cavernosal artery; and
control electronics operably coupled with the at least one sensing element to receive the first data signals.

2. The device of claim 1, wherein the at least one sensing element comprises an ultrasound transducer.

3. The device of claim 2, further comprising an ultrasound standoff in close proximity to the ultrasound transducer, the ultrasound standoff being constructed for passage of ultrasound energy, the ultrasound standoff further being constructed for application to the female clitoris.

4. The device of claim 2, wherein the control electronics process the first data signals to generate second data signals representing clitoral cavernosal artery blood velocity.

5. The device of claim 4, wherein the control electronics additionally process the first data signals to generate third data signals representing clitoral diameter or cavernosal artery diameter.

6. The device of claim 2, wherein the housing comprises an elongate shaft constructed for insertion into the vagina, the ultrasound transducer being disposed at a distal end of the elongate shaft.

7. The device of claim 6, wherein the at least one sensing element comprises a plurality of ultrasound transducers.